

REMARKS

Claims 6-7 and 9-10 are all the claims pending in the application.

Claim 6 has been amended to recite that the process further comprises adding an yeast extract to the raw milk at the same time or after adding the lactic acid bacteria starter to the raw milk in step (1), and before formation of the curd in step (2). Claim 6 has been further amended in response to rejections under 35 U.S.C. §112, first paragraph and second paragraph, as discussed below.

No new matter has been added. Entry of the Amendment is respectfully requested.

I. Claim Rejection under 35 U.S.C. §112 - first paragraph

Claims 6-7 and 9-10 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, with regard to claim 6, the Examiner asserts that the instant specification, while provides written support for “cutting and cooking the curd to remove the whey”, does not reasonably provide written support to recite “processing thus formed curd to remove whey”.

Without acquiescing in the merits of the above rejection, claim 6 has been amended to delete the recitation of “processing thus formed curd to remove whey”. Claim 6, as amended, recites a step of removing whey from thus formed curd.

Withdrawal of the foregoing rejection of claim 6 under 35 U.S.C. §112, first paragraph, is respectfully requested.

II. Claim Rejections under 35 U.S.C. §112 - second paragraph

Claims 6-7 and 9-10 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Specifically, the Examiner asserts that claim 6 is indefinite because claim 6 recites “a milk component”. The Examiner asserts that it is unclear if “a milk component” is simply

the milk used for making cheese or it is meant to be any component of regular milk which could comprise casein, whey powder, whey concentrate, casein hydrolyzate, etc.

Without acquiescing in the merits of the above rejections, claim 6 has been amended to delete the recitation of “a milk component”, and replace it with the recitation of “a raw milk” for clarity.

Further, the Examiner asserts claim 6 is indefinite because claim 6 recites “a viable count of”. The Examiner asserts that it is unclear whether the claimed viable count is the count of *Lactobacillus gasseri* or a total viable count which could include other organisms. The Examiner asserts that it is not clear whether “a viable count” is defining *Lactobacillus gasseri*.

Without acquiescing in the merits of the above rejections, claim 6 has been amended to recite wherein the natural cheese has a viable cell count of *Lactobacillus gasseri* in the number of 10^7 cfu/g or more when preserved at a temperature of 10°C or less for 6 months.

Withdrawal of the foregoing rejection of claim 6 under 35 U.S.C. §112, second paragraph, is respectfully requested.

III. Claim Rejections under 35 U.S.C. § 103

Claims 6-7, and 9-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gardiner et al. (1998, Development of a probiotic cheddar cheese containing human -derived *Lactobacillus paracasei* strains; hereinafter “Gardiner”) in view of DE 1955833 (hereinafter “R2”) and Kimura et al. (EP 1 112 692 A1, hereinafter “Kimura”).

Claims 6-7 and 9-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable Gardiner, DE 1955833 (hereinafter “R2”), Kimura et al. (EP 1 112 692 A1, hereinafter “Kimura”), further in view of Germond et al. (WO 0188150, hereinafter “Germond”).

Applicants respectfully traverse. The above rejections should be withdrawn because Gardiner in view of R2, Kimura and/or Germond, does not disclose or render obvious the presently claimed process for producing a natural cheese.

Independent claim 6, as amended, recites that the process further comprises adding an yeast extract to the raw milk at the same time or after adding the lactic acid bacteria starter to the raw milk in step (1), and before formation of the curd in step (2).

R2 is cited by the Examiner as assertedly disclosing a process where cheese of all types with improved storage life, higher yield and improved aroma are obtained by replacing or supplementing conventional cheese cultures with Bifidus bacteria and preferably *adding growth activators such as yeast extract* to the milk (Abstract). The Examiner contends that since that R2 discloses the use of yeast extract in order to support and activate the growth of the probiotic organisms, and according to the Examiner, it is obvious that the yeast extract should be added to the milk before the formation of curd.

R2 discloses adding yeast extract as growth activators, however, R2 does not disclose or recognize the addition of an yeast extract before formation of the curd and after incubation of the lactic acid bacteria starter so as to allow *L. gasseri* grow and survive in cheese dominantly over lactic acid bacteria for cheese.

R2 does not disclose or teach adding an yeast extract to the raw milk at the same time or after adding the lactic acid bacteria starter to the raw milk, and before formation of the curd, as required in present claim 6.

In addition, Test Example 2 of the instant application (at pages 29-30 and Fig. 7) relates to studies of growth of various lactic acid bacteria strains under acid condition, and the test result (as shown in Fig. 7) clearly demonstrates that each *Lactobacillus* strains has different growth rate

and survival rate under the same acid condition. The Examiner's assertion lacks scientific grounds because, as seen in Gardiner, it is not reasonable to assume all *Lactobacillus* strains are expected to have same growth rate and survival rate overtime when incorporated into cheese, and it is not reasonable to assume that *L. paracasei* and *Lactobacillus gasseri* strains are interchangeable.

Furthermore, it is noted that on pages 8-9 of the Action, the Examiner contends that Applicants' argument (1) that the survival rate (of bacteria in the cheese) depends on the conditions for bacterial growth, and Applicants' argument (2) it is not easy to increase the number of lactic acid bacteria in cheese because water activity is low in cheese, are contradictory. The Examiner asserts that the first statement says that survival rate depends on the conditions for bacterial growth, and that the second statement denies the increase in the number of bacteria because the water activity is low in cheese. The Examiner reasons that at the beginning of the process, the microorganisms should proliferate and increase in number, however, thereafter at storage temperature of below 10 °C, there will be no growth and the microorganisms will survive if water activity is low, if oxygen tension is low and if storage temperature is low. Therefore, according to the Examiner, during storage, these factors will determine the viability and the survival of the microorganism in cheese. Furthermore, the Examiner asserts the sensitivity of lactic acid bacteria to high water activity, for long term preservation, is known in the art. Therefore, according to the Examiner, low water activity will always be beneficial to lactic acid bacteria for survival in storage.

Applicants respectfully traverse.

In particular, Applicants respectfully disagree with the Examiner's assertion of water activity described on page 9 of the Action.

The Examiner appears to describe arguments of dried state. However, cheese is not completely dried food and it is difficult to keep high bacterial count in cheese. Reconsideration is respectfully requested

In view of the amendment to claim 6 and the foregoing remarks, Applicants respectfully submit that the present claims are not obvious over Gardiner, in view of R2, Kimura and/or Germond. Reconsideration and withdrawal of the present § 103(a) rejections of claims 6-7, and 9-10 are respectfully requested.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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